

REMARKS

This is in response to the Office Action mailed January 10, 2003 in the above identified application, which application is related to candles or lamps comprising a solid fuel element selected from gels and solid waxes, a consumable wick, and a heat conductive container for said fuel element, wherein the container is configured so as to cause melted fuel to flow to the wick, and wherein said heat conductive container further comprises heat conductive elements to channel heat from a flame upon the wick to the container to cause said fuel element to more rapidly melt.

In the Office Action, the Examiner correctly notes that the claims submitted with the previous amendment were mis-numbered, and that mis-numbered claims 22 - 38 have been renumbered as claims 21 - 37. Applicants apologize for this error, and have adopted the corrected numbering in accordance with the Examiner's objection. Following entry of the present amendment, the claims in this application shall be claims 21, 24 - 26, and 28 - 37.

The Examiner has rejected Claims 33, 34, and 36 under 35 U.S.C. 102(b) as being anticipated by Jung (DE 3403604). Applicants respectfully disagree with the Examiner with respect to the reference, and enclose herewith a translation of said reference for the Examiner's convenience. Jung teaches a candle of wax,, stearin, or the like, held in a deep cup (3). A metal tube (4) connected to the bottom of the cup (3) has a lengthwise slot (6), and constitutes a wick holder. See page 4, lines 3 - 6 of the translation. The inner space of the tube contains an absorbent body ending below the upper edge of the tube, which body surrounds the wick and conveys the melted candle base material to the upper end of the tube, where the candle burns. The metal tube conducts the heat of the candle flame to the bottom of the cup, and into the candle base so as to liquify the last residue of the candle base. It is noted that the candle flame does not descend into the cup (see figure 3) but remains at the upper end of the tube. As taught at page 5, lines 25 - 32 of the translation, the bulge 9 assists in the

lighting of the candle by providing immediate flow of liquefied fuel to the wick upon lighting. The metal tube (4) is responsible for the transmission of heat from the candle flame to the candle base material (i.e. the fuel), and is connected to the bottom of the cup, which may be either plastic or metal, by a heat-resistant adhesive. It is noted that with progressive burning of the candle a large part of the candle base (2) in the vicinity of tube 4 has become liquefied. Thus, the melting of the candle wax is a result of heating by the metal tube, not by transmission of the heat by the tube to the bottom of the cup and further heating of the wax by the heat conductive cup. It is specifically to be noted that the cup may be of plastic, a material not noted for heat conduction. It may be seen from figure 3 that the base of the cup does not contribute significantly to the melting of the wax, since the liquefied pool of candle wax does not extend across the diameter of the base, but only a short distance from the heating tube. Accordingly, the patent neither teaches nor makes obvious the concept of the present invention, that the container melts the fuel, and that the container is configured so as to cause the flow of liquefied fuel to the wick. The heating tube 4 of the reference accomplishes the melting of the fuel, as well as the latter goal, by means of the absorbent material contained therein.

With respect to the specific claims subjected to this rejection by the Examiner, Applicants offer the following comments. Claims 33 and 34 recite a solid replacement element for a fuel holder, the element comprising either a wick (claim 33) or no wick (claim 34), and comprising a solid fuel specifically configured. The reference fails to teach a replacement element for a candle holder, since the reference deals with a total candle, and does not teach replacement of the wax in the container 3 upon complete burning thereof. Nor is there any indication that the metal tube 4 is separable from the container 3 or the candle base 2. With respect to claim 36, it is noted that this claim recites that the container is configured so as to cause flow of liquid contents to the wick, and to engage and melt a solid fuel element. The reference fails as a teaching of either of these specific recitations. Accordingly, it is submitted that claims 33, 34, and 36 are

neither taught nor made obvious by the Jung German Patent, and that the rejection under 35 U.S.C. 102 should be withdrawn. An early indication of the allowability of said claims 33, 34, and 36 is solicited.

The Examiner has rejected claims 21 - 22, 24 - 32, 35, and 37 under 35 U.S.C. 103(a) as being unpatentable over Jung in view of Tsuda *et al.* (GB 1514338). Applicants respectfully submit that this rejection is without merit. The Jung reference is deficient as set forth above, and as is clear upon close examination of the enclosed translation, does not disclose the invention substantially as claimed. As noted by the Examiner, the reference is also deficient in not teaching the presence of a heat conductive element selected from the group consisting of lobes and wick holders with fins. The Examiner equates "the lobes or wick holders with fins" of the present invention with the heat receiving portion 21 of the tube 20 of the patent. However, it must be pointed out that the rejected claims of the present application recite that the "lobes and wick holders with fins" are part of the heat conductive container, not part of a heat transfer pipe as in the reference. Accordingly, it is not believed that the Tsuda reference overcomes the deficiencies of the primary reference, Jung. It is therefore submitted that this rejection is without merit, and that claims 21 - 22, 24 - 32, 35, and 37 are neither taught nor made obvious by the Jung and Tsuda *et al.* references, alone or in combination. An early indication of the allowability of said claims is solicited.

In addition, the Examiner has objected to Claim 23 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 23 recites that the fuel is candle wax, and said container is a concave melting plate. While Applicants are grateful to the Examiner for this indication of allowability, Applicants believe that limiting the fuel to candle wax is unnecessary and inappropriate, and that the limitation of claim 22 relative to the fuel, i.e. "*wherein said fuel is selected from the group consisting of gels and solid waxes*" is sufficient in light of the prior art. Accordingly, this latter limitation and the recitation that "*said container is a concave melting plate*" have been

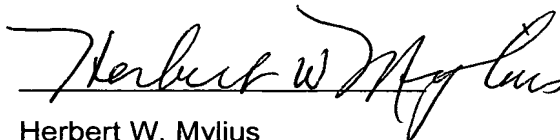
incorporated into claim 21 by the presently submitted amendment, and likewise into claim 26. Claims 22, 23, and 27 have been cancelled in light of the incorporation of the limitations thereof into claims 21 and 26, from which said claims previously depended. In light of this amendment, it is submitted that claims 21 and 26, and all remaining claims dependent therefrom, are now in condition for allowance.

With respect to the limitation of former claim 23 that *"the fuel is candle wax, and said container is a concave melting plate "*, Applicants offer the following comments. The Examiner, in the Office Action of October 1, 2001, took official notice of the fact that the use of solid fuels, including gels, solid waxes, and paraffin in candles is well known to those skilled in the art. Applicants agree, but believe that there is no reason identified in the prior art to limit the present invention to *"wherein said fuel is candle wax"* rather than *"wherein said fuel is selected from the group consisting of gels and solid waxes"*. On the contrary, Applicants suggest that the claims of this application would justifiably identify the fuel as being a solid fuel, as originally set forth. However, to expedite prosecution of this application, applicants have amended claims 21 and 26 as set forth above.

Respectfully submitted,

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## APPENDIX

In accordance with 37 CFR 1.121(c)(1)(iii), the following constitutes a marked-up version of the Claims amended in the present AMENDMENT, indicating the changes made in the Claims as amended. In addition, claims 22, 23, and 27 have been cancelled. Claims 24, 25, and 31 - 37 remain as previously submitted.

21 (Amended). A candle comprising, in combination, a fuel element comprising a solid fuel selected from the group consisting of gels and solid waxes, a consumable wick at which said fuel may be burned to produce heat, a heat conductive container for said fuel element whereby said heat may be transported so as to melt said solid fuel, wherein said container is a concave melting plate configured so as to cause the flow of melted fuel to said wick, and said heat conductive container further comprises a heat conductive element selected from the group consisting of lobes and wick holders with fins, by which heat is conducted to said container from a flame upon said wick.

26 (Amended). A melting plate candle comprising, in combination, a meltable solid fuel selected from the group consisting of gels and solid waxes, a consumable wick, a heat conductive concave melting plate [base] upon which said fuel rests[, and a] and which comprises a heat conductive element, selected from the group consisting of lobes and wick holders with fins, by which heat is conducted to said [base] melting plate from a flame upon said wick, whereby a pool of heated liquid fuel is created, wherein said [heat conductive base] concave melting plate is configured so as to cause the flow of said heated liquid fuel to said wick for combustion, and said [base] plate and said element are configured so as to cooperatively engage said fuel.

28 (Amended). The candle of Claim [27] 26, wherein said heat conductive element is a lobe.

29 (Amended). The candle of Claim [27] 26, wherein said heat conductive element is a wick holder with fins.

30 (Amended). A melting plate candle comprising a replaceable fuel element and consumable wick, a fuel holder comprising a heat conductive melting plate[, and] comprising at least one heat conductive element to collect heat from a flame at said wick and conduct said heat to said melting plate to thereby melt said fuel and form a pool of liquid fuel on the surface of said melting plate, wherein said fuel holder is configured to position and engage said fuel on said melting plate for rapid melting, said heat conductive elements are selected from the group consisting of lobes and wick holders with fins, [and] said melting plate is shaped so as to cause said pool of liquid fuel to flow to said wick, and the temperature of said pool of liquid fuel exceeds a temperature of about 180° F. at a point about 10 mm from said wick, and about 160° F at a point about 20 mm from said wick.